

Abstract Of The Disclosure

[0055] A surgical needle for fracturing tissue such as cataracts has a distal operating port which holds tissue to be fractured. An optical fiber that extends down a needle applies laser energy pulses to a target causing optical breakdown and the generation of shockwaves which impinge on the tissue at the operating port, causing the tissue to fracture. Fractured tissue is aspirated through the passageway of the surgical needle. The operating port and target are both positioned at the distal end of the needle to facilitate surgeon observation during the operation. The needle has a wall which is unitary and provides an aspirating channel with a smooth surface so as to minimize flow turbulence and maximize laminar flow and also minimize friction. The close to laminar flow permits greater flow velocity and thus enhanced ability to hold tissue at the port.